ABSTRACT OF THE DISCLOSURE

The purpose of the present invention is to provide a datagram transfer network that can operate stably by avoiding a state of congestion collapse by utilizing information derived from evaluating the impact of datagrams on the operation of the network. To achieve this objective, the results of evaluation is expressed as a preference value related to datagrams, and are inserted in the header in each datagram so that the datagrams are processed by an approach other than the methods based on arrival sequence of datagrams, when derived to the destination indicated in the header. In this approach, datagrams are protocol is controlled by priority order derived from the preference value which reflects traffic information obtained by a traffic monitoring equipment.